

USAF Declass/Release Instructions On File

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PART III - ENVIRONMENTAL

DESCRIPTION
STATEMENT

1. GENERAL

This statement is issued in compliance with the memorandum from the Secretary of Defense dated 8 August 1970 in reference to the National Environmental Policy Act of 1969; Executive Order 11514; and the Interim Guidelines for Statements on Major Federal Actions Affecting the Environment published by the Council on Environmental Quality.

The memorandum requests an Environmental Statement for proposed actions, if, in the opinion of the Department of Defense, the action qualifies for such a statement under either one of the two following criteria:

- (1) A significant adverse environment effect will result from the proposed action, or
- (2) The proposed action is likely to be controversial with respect to environmental effects.

The Department of the Air Force foresees no adverse environmental effects resulting from the Master Plan concept of Andrews Air Force Base and from the construction required to implement this plan.

The Department of the Air Force supports the intent of the Environmental Policy Act to improve the quality of the environment, and in keeping with the spirit of the Act, the following general description and information is furnished regarding the impact on the environment from the Master Plan concept and the ensuing construction involved.

2. IMPACT OF THE MASTER PLAN ON THE NATURAL ASPECTS OF THE ENVIRONMENT

a. Predictions of the Probable Impact of the Proposed Action on the Environment

(1) Population. The table on the following page indicates the present and projected base population. (See "Population Impact", Page 69)

It should be noted that the total employment (civilians, officers and enlisted men) remains approximately 13,000. The primary population impact is generated by the housing requirements for military personnel resulting in an increase of approximately 5,100 dependents.

In turn, the on-base dependents increase will result in demands on utility systems, internal traffic and parking, and construction of on-base community and recreational facilities.

(2) Aircraft Operations. The accompanying graph summarizes aircraft movements (takeoffs and landings) by month and yearly totals for the past 3 years (1968 thru 1970, inclusive). (See "Flight Operations", Page 72)

Figures for 1971 (4 months) indicate a decrease in operations and the yearly total is expected to be between the 1968 & 1969 total, say approximately 209,000 movements. This decrease may be partly attributed to the implementation of the Washington Terminal Control Area (20 August 1970) resulting in more positive control of aircraft in the area. Monthly arrival and departure missions average 10,000 to 12,000 not including local traffic.

The conclusion of the Vietnam War could result in some minor increase in air traffic at Andrews AFB. Any future increase will be more directly related to Air Force expenditures. The field is capable of handling between 200,000 and 225,000 movements per year and no significant change is expected in the foreseeable future (5 years).

	CURRENT TOTALS	PROGRAMMED							1976 TOTALS	FUTURE FY XX	FUTURE TOTALS
		UNDER CONST	FY 71	FY 72	FY 73	FY 74	FY 75	FY 76			
OFFICERS	1,900								1,312		1,312
ON-BASE HOUSING (FAMILY)	299			100	50				449	372	812
DEPENDENTS	852			285	142				1,279	1,050	2,339
AIRFEN	6,957								6,627		6,627
ON-BASE HOUSING (FAMILY)	617	100		350	250				1,317	588	2,005
DEPENDENTS	1,758	285		998	713				3,754	1,901	5,655
TRAILER SITES (FAMILY)	115		30						145		145
DEPENDENTS	328		85						413		413
VALSOLW GROW USAF MEDICAL CENTER	350								500		500
AERO MEDICAL STAGING FACILITY	100								100	150	250
ELEMENTARY SCHOOL CAPACITY	1,385								1,385		1,385
ELEMENTARY SCHOOL ENROLLMENT	1,245	90	27	410	270				2,042	954	2,996
TOTAL MILITARY & DEPENDENTS	12,245								14,335		14,335
TOTAL CIVILIANS	3,462								3,367		3,367
NON-APPROPRIATED FUND CIVILIANS	717								717		717
TOTAL BASE POPULATION	16,424								18,649		18,649

- (1) EXISTING FACILITIES TO BE DEMOLISHED.
 (2) TRAILER SITE NOTE SHOWN ON LONG RANGE SITE DEVELOPMENT PLAN.
 (3) NINE OFFICER FAMILY UNITS RECOMMENDED FOR ULTIMATE DISPOSAL.
 (4) DOES NOT INCLUDE 12 UNITS AT BRANDYWINE STATION.

POPULATION IMPACT

Mission, personnel, and aircraft assignments indicate no significant change during this period.

The terrain in the area of the base is generally defined as flat to gently rolling. Runway end elevations have been established as follows:

<u>East Runway</u>	<u>West Runway</u>
1R - 252.99'	1L - 255.28'
19L - 278.42'	19R - 273.88'

The established airfield elevations is 279'.

Extended runway centerline profiles to a distance of approximately 10 miles from the runway ends indicate the terrain gradually slopes away from the runway ends to elevations of 200' or less.

Detail profiles of the final 10,000 feet (approximately 2 miles) to the runway ends indicate no obstructions with the exception of natural growth requiring periodic trimming of trees. Clearance easements in the approach-departure clearance surface at the north and south ends of the field limit the height of structures and permit the removal of natural growth in the 50:1 glide path to the east and west runways.

In the aerial approach and traffic pattern zones, control of types and density, height limitation, prevention of smoke or other atmospheric pollution, and electrical disturbances which reduce visibility or interfere with the operation of radio aids and communications are of major concern. Recent preliminary plans by the MNCPPC indicate a desire to zone the area adjacent to the base in the southern approaches as Industrial. This does not appear to be in the best interests of the government and not in keeping with a green belt plan concept.

Air traffic in the area is saturated, the result of 4 major airfields in close proximity as indicated by the following table: (AAFB - Andrews Air Force Base,

DIA - Dulles International Airport, Friendship International Airport, WNA - Washington National Airport)

	<u>Mileage</u>			
	<u>AAFB</u>	<u>DIA</u>	<u>FIA</u>	<u>WNA</u>
Andrews AFB	-	31	29	9
Dulles Int'l	31	-	45	23
Friendship Int'l	29	45	-	31
Washington National	9	23	31	-

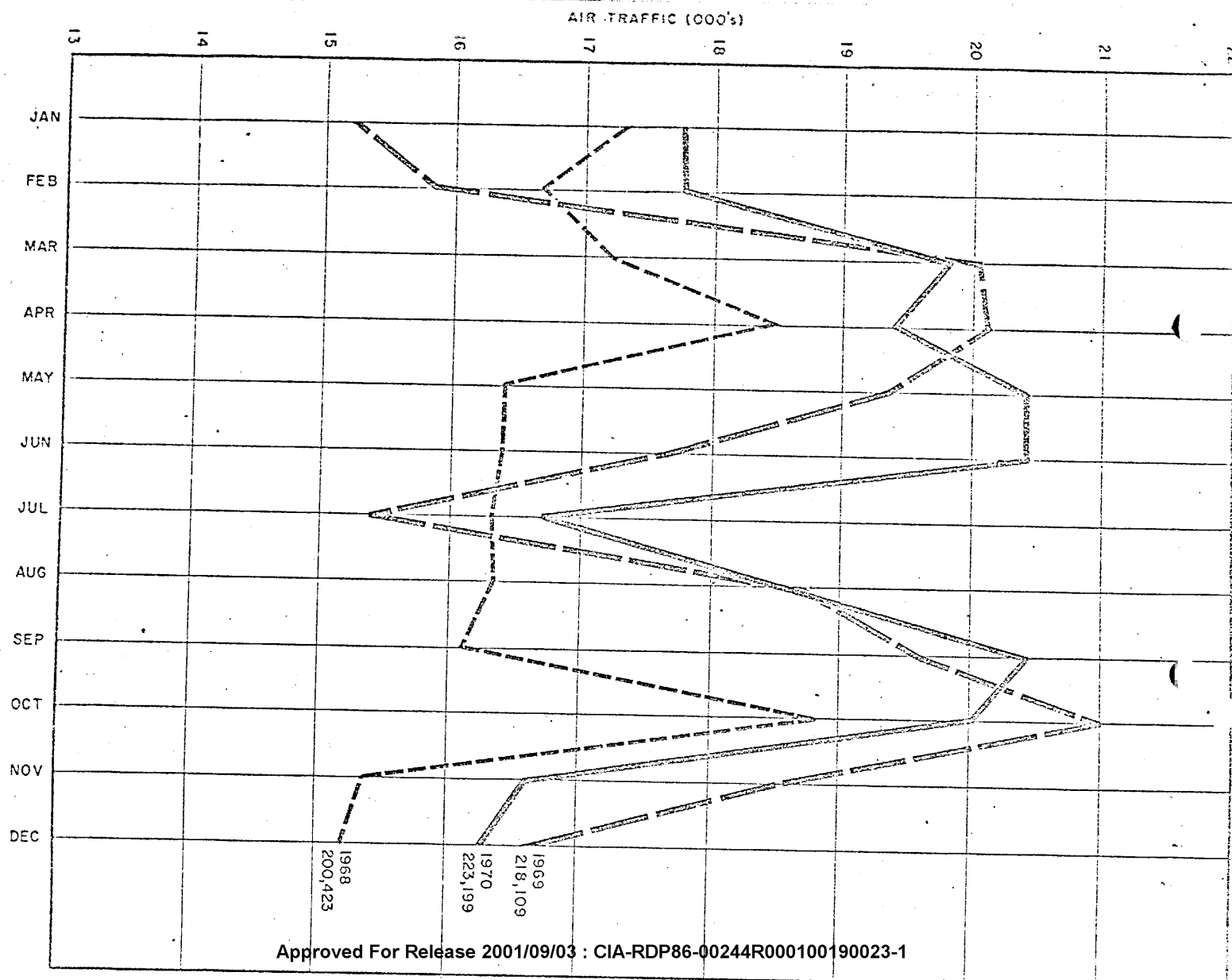
By necessity, available airspace is reduced. Direct affect upon AAFB is that less than 10% of departures from the field, regardless of destination, are in a westerly direction in order to avoid direct conflicts with Washington National Airport.

(3) Noise Abatement. Aircraft are the major source of noise pollution at Andrews AFB and its surroundings. Noise contour maps have been developed in accordance with AFM 86-5 to graphically show areas affected by aircraft operation. This procedure is a calculated quantity that permits one to estimate community response to aircraft noise generated by present or future operations and thus guide zoning decisions.

The first step in this procedure was an actual count of aircraft operations occurring at Andrews AFB during the week of 10-16 May 1970. The accompanying table indicates the total take-offs and landings of jet aircraft during the hours 0700 (7 am) - 2200 (10 pm). One or two engine piston and turboprop aircraft were not considered in this tabulation since in almost all instances requiring evaluation they do not contribute materially in establishing final Composite Noise Ratings.

Evaluation of existing data indicates the major sources of noise disturbances are generated by the take-off of F-8 and F-100 aircraft using afterburners on the east runway (1R-19L) and by operations of T-33 and T-39 aircraft on the west runway (1L-19R). Another major source of noise disturbance is caused by C-130/137 and heavily loaded C-141

FLIGHT OPERATIONS 1969 - 1970



aircraft flying at low altitudes approximately 5 to 6 miles from the runway ends. These flights are transporting medical patients and supplies. Flight operations average 60% on RW's 1L & 1R and 40% on 19L & 19R.

Andrews AFB is aware of the problems relating to noise resulting from flight operations and the following noise abatement procedures are in effect:

1. Limit field to mission essential flights from 2200 (10 pm) to 0600 (6 am).
2. Pilots to take-off and climb rapidly to 1500' and maintain 1500' minimum altitude.
3. Special areas designated for engine run-up operations.
4. All complaints are investigated and analyzed and pilots reprimanded if warranted.
5. Special Noise Abatement Procedures as described are published world-wide and are known and applicable to base and transient aircraft.

A by-product of equipping the C-135/137 fleet (Boeing 707) with fan engines has resulted in increased aircraft performance with a reduction of noise and exhaust emissions. In general, the design of military aircraft is predicated upon performance and no significant changes can be foreseen in the near future that will greatly reduce noise levels. Instead, reduction in noise levels at large airports will result from operational controls and/or mission changes.

The Air Force is cooperating with FAA to reduce noise levels. In the near future, arrivals and departures will be required to maintain higher altitudes as long as possible resulting in a reduction of noise in the vicinity.

ANDREWS AFB JET AIRCRAFT OPERATIONS
SUN-SAT, 10-16 MAY 1970 - 0700-2200 HOURS

	ARRIVALS				DEPARTURES			
	West Runway		East Runway		West Runway		East Runway	
	1L	19R	1R	19L	1L	19R	1R	19L
A-3	1	3	0	3	2	0	4	0
A-4	3	4	3	0	2	2	5	4
A-5	0	1	0	0	0	0	0	1
C-9	4	9	0	0	2	10	1	0
C-135/137	10	4	0	0	10	9	2	2
C-140	20	25	3	2	25	22	3	3
C-141	6	10	2	2	5	10	4	0
F-4	0	3	0	0	0	3	0	2
F-8	12	17	17	6	5	3	25	14
F-9	0	0	0	1	1	2	0	0
F-84	0	1	0	0	0	0	0	0
F-100	3	2	23	22	10	1	17	19
F-101	3	2	0	0	1	0	1	0
F-106	0	1	0	0	0	1	0	0
T-1	6	7	5	5	0	2	14	9
T-2	0	1	0	0	0	1	0	1
T-33	36	52	15	4	52	30	16	11
T-37	0	4	0	1	0	2	0	0
T-38	0	3	0	0	1	2	0	0
T-39	41	52	9	2	47	50	7	7
DC-8	1	0	0	0	1	0	0	0

(4) Water Quality

(a) Sanitary Sewerage Collection System and Sewage Treatment Facilities.

Existing facilities in present operation consists of three separate systems, each having its own treatment plant. Sewage collected from various buildings is, for the most part, conveyed by gravity through terra cotta or vitrified clay pipes to the treatment plant. Several remote facilities are served by septic tanks. The accompanying chart summarizes operating characteristics of the existing plants. All existing plants are properly maintained and operated.

The Potomac River Enforcement Conference recommended that Andrews

AFB have advanced waste treatment facilities operational by 1 July 1973 by means of either

a municipal connection or by construction of on-base facilities. Existing plants do not provide advanced treatment. Negotiations are presently underway with the Washington Suburban Sanitary Commission (WSSC) for the connection of the on-base system into the public utility system, and the eventual removal of the on-base treatment plants. Anticipated increases to present flows as described in the accompanying table are as follows:

	To Piscataway Treatment Plant		To Western Treatment Plant
	From On-Base Plant No. 1	From On-Base Plant No. 4	From On-Base Plant No. 3
FY 70 - 100 FA Qtrs (Under Const)	22,200 GPD	-	-
FY 72 - 450 FA Qtrs	99,900 GPD	-	-
FY 73 - 300 FA Qtrs	66,600 GPD	-	-
FY xx - 1060 FA Qtrs	166,900 GPD	-	68,300 GPD

(b) Industrial Waste. The estimated average industrial water waste is 200,000 GPD with a peak flow rate of 300 GPM. Most of the industrial waste is the result of washing and cleaning, corrosion control, and fuel and lubricant handling operations. Waste constituents consist mainly of oil, solvents, detergents and paint removal compounds.

Water waste from the corrosion control facility is discharged to the sanitary sewer system and treated at sewage treatment plant No. 3. Treatment for other industrial wastes consist of oil separators to remove free oil. There are 28 small oil interceptors and 11 large separators which readily remove floatable oil and do not remove detergents or emulsified oils and solvents. Effluents from the separators are discharged to the storm drainage system. Waste oil recovered from the separators is removed by a waste pump truck and transported to two 25,000 gallon oil waste storage tanks at the sanitary land fill site.

The oil interceptors and separators are widely dispersed throughout

SEWAGE TREATMENT PLANT CHARACTERISTICS

	Daily Design Capacity	Average Daily Flow Treated	Peak Daily Flow	Minimum Daily Flow	Average Reductions		
					BOD	Settleable Solids	Suspended Solids
Plant No. 1	913,000 GPD	730,000 GPD	1,060,000 GPD	600,000 GPD	91%	98%	84%
Plant No. 3	480,000 GPD	329,500 GPD	460,000 GPD	280,000 GPD	85%	99%	85%
Plant No. 4	125,000 GPD	63,200 GPD	100,000 GPD	70,000 GPD	85%	99%	86%

	Bar Screen	Comminuter	Metering Device	Imhoff Tanks	Trickling Filters	Final Settling Tanks	Chlorine Contact Tanks	Sludge Drying Beds	Base Service	Effluent Discharge
Plant No. 1	1	1	1	3	3	3	2	13	Northwest Section	Meeting House Branch (Potomac River Basin)
Plant No. 3	1	1	1	2	2	2	1	5	East Side	Cabin Branch (Patuxent River Basin)
Plant No. 4	1	1	1	2	1	1	1	4	Southwest Section	Paynes Branch (Potomac River Basin)

It is planned instead (FY 73) to connect existing industrial waste facilities into the sanitary sewer system.

(c) Boiler Blowdown. No treatment is provided for the boiler blowdown and discharge is directly into the storm sewer system.

<u>Nbr. of Power Plant</u>	<u>Estimated Blowdown Per Month</u>	<u>Chemicals added to boilers per month/pounds</u>			
		<u>Hexameta- phosphates</u>	<u>Tannin</u>	<u>Salt</u>	<u>Caustic</u>
1515	44,000 gals.	456	420	2,800	0
1732	35,000 gals.	104	156	2,200	0
3409	9,500 gals.	38	60	600	0
S-3343	2,100 gals.	68	56	0	40
S-4331	1,900 gals.	52	42	0	24

Connection of the boiler blowdown drainage to the sanitary sewer system is included with the proposed MCP project for connecting the industrial waste separators and interceptors to the sanitary sewer system.

(d) Coal Storage. Runoff from the coal storage area drains into the Charles Branch (Patuxent River Basin). Included in the FY 72 MCP are projects for the conversion or elimination of coal burning heating plants and the subsequent elimination of the coal yard.

(e) Cooling Towers. Cooling towers for air conditioning water are serviced by commercial contractors and the quantities and types of additives are not presently available. A requirement for the maintenance contractor to furnish total information on cooling tower additives and bleed-offs has been included in the contract for FY 72.

(f) Hazardous Materials. The storage of the following listed materials is adequate to preclude pollution from the facilities. No mercury is stored or routinely